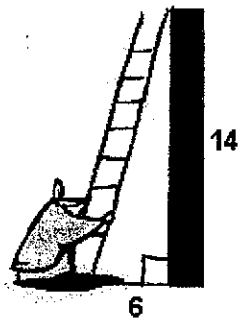
Name:_____ Form A
HW115_MixedTriangles
Mr. Tiénou-Gustafson, Mr. Bielmeier
Geometry, Period_____
Due Date: Tue, 10 Mar 2015

Geometry Homework

1. **Complete any classwork problems not finished in class.**
2. **Finish the right triangle problems below using any of the right triangle methods or strategies you know:** (1)Pythagorean Theorem, (2) Pythagorean triples, (3) special right triangles, (4) trig, and (5) inverse trig. **ALL methods must be used at least once!**

A ladder leans against a building. The foot of the ladder is 6 feet from the building. The ladder reaches a height of 14 feet on the building. Use this figure for problems 1 & 2.



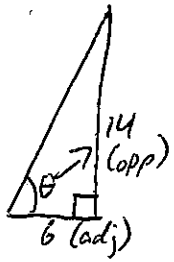
1) Find the length of the ladder to the nearest foot.

Work/Explanation: $a^2+b^2=c^2$

*Answer:*_____ *Method used:*_____

2) Find to the nearest degree, the angle the ladder makes with the ground. SOH CAH TOA

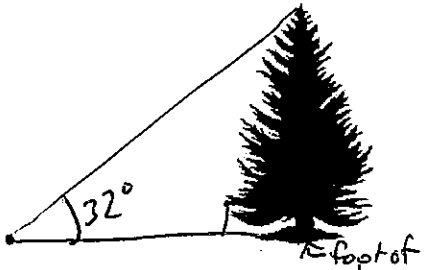
Work/Explanation:



*Answer:*_____ *Method used:* inverse trig

3) From a point on the ground 25 feet from the foot of a tree, the angle of elevation of the top of the tree is 32º. Find the height of the tree to the nearest foot.

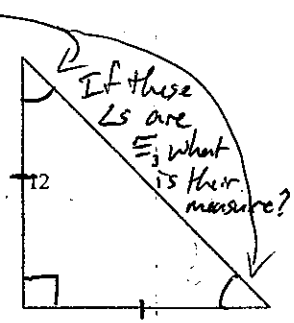
Work/Explanation:



*Answer:*_____ *Method used:*_____

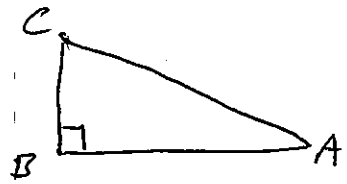
4) The isosceles right triangle to the right has a leg that measures 12 inches. What is the length of the hypotenuse in simplified radical form?

Work/Explanation: legs: 5 | 5 | 5√ ← hyp; 12 | 12



*Answer:*_____ *Method used:*_____

In right triangle ΔABC, $\cos A = \frac{12}{13}$ and ∠B is a right angle. Draw and label a figure and use this to solve problems 4 & 5.



5) What is the length of side BC?

Work/Explanation:

*Answer:*_____ *Method used:*_____

6) What is the measure of angle A?

Work/Explanation:

*Answer:*_____ *Method used:*_____

7) ***Combined Skills*** **– *this will require multiple steps.* Find the area of the ~~smallest~~ largest triangle.** Round all values to the nearest tenth.

A=